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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,969	08/30/2001	Kay-Yut Chen	10004567-1	2217

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HEWLETT-PACKARD COMPANY
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EXAMINER

KRISCIUNAS, LINDA MARY

ART UNIT PAPER NUMBER

3623

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/944,969	Applicant(s) CHEN, KAY-YUT	
	Examiner Linda Krisciunas	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Request for Information Under 37 CFR 1.105

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

The fee and certification requirements of 37 C.F.R. § 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 C.F.R. § 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 C.F.R. § 1.105 are subject to the fee and certification requirements of 37 C.F.R. § 1.97.

The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained will be accepted as a complete response to the requirement for that item.

This requirement is an attachment of the enclosed Office action. A complete response to the enclosed Office action must include a complete response to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action, which is 3 months.

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In response to this requirement, please provide the citation and a copy of each publication which any of the applicants authored or co-authored and which describe the disclosed subject matter of Non Patent Literature: "Minimal Intelligence Agents for bargaining behaviors in market-based environments" by Cliff et al, Hewlett Packard Technical Bulletins, August 1997; "Less than human: simple trading agents for CDA markets" by Cliff et al, Hewlett Packard Technical Bulletins, 1997; "A model for the E-service marketplace" by Durante et al, Hewlett Packard Technical Bulletins, February 2000; "Automated Trading in agents-based markets for communication bandwidth" by Vulkan et al, Hewlett Packard Technical Bulletins, February 2000; "Shop 'Til you drop II: Collective Adaptive Behavior of Simple Autonomous Trading Agents in Simulated 'Retail' Markets" by Cliff et al, Hewlett Packard Technical Bulletins, March 1998; and "Human Agent Communication" by Dickinson, Hewlett Packard Technical Bulletins, July 1998. These systems appear similar in scope to the claimed invention which teaches a method of making a business decision that utilizes rules, player definitions and payoff functions. Please also provide documentation as to the release date, product name and abilities of the software programs listed in the 37 CFR 1.131 Declaration on page 2, item #9 (filed June 5, 2006), prior to March 8, 2001 so the Examiner can fully understand the capabilities and differences between the current invention and the mentioned software programs.

This information is required to identify products and services embodying the disclosed subject matter of application 09/944969 and identify the properties of similar products and services found in the prior art.

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In response to this requirement, please provide the names of any products or services that have incorporated the disclosed prior art in application 09/944969.

A handwritten signature in black ink, consisting of a large, stylized 'Q' followed by a series of horizontal strokes that taper off to the right.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 5, 2006 has been entered.

Claims 1-21 are pending. Claims 1, 5, 10, 13, and 17-18 were amended. Claim 21 was newly added.

This Office action has an attached requirement for information under 37 C.F.R. § 1.105. A complete response to this Office action must include a complete response to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

Response to Amendment

2. The Examiner notes the amendment to the Specification filed June 5, 2006. The Examiner also notes that the amendments to the claims do not further limit the invention and are therefore subject to the same art rejection previously provided and have been addressed below.

Response to Arguments

3. The affidavit filed on June 5, 2006 under 37 CFR 1.131 has been considered but is ineffective to overcome the Adler (US 2002/0169658) reference. The information

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provided must meet all the claim limitations in order to sufficiently support a declaration for reduction to practice.

The evidence submitted is insufficient to establish applicant's alleged actual reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Adler reference.

The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Adler reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Adler (US 2002/0169658).

As per claim 1, Adler teaches defining players including a set of rules (16, domain model, see also paragraph 38 for behavioral rules for decision making), defining decision space (14, decision options), a decision making process tree (paragraph 7 and (12) plurality of scenarios, see also paragraph 86 for hierarchical tree controls for specification of domain objects such as scenarios), an information set, an outcome function (paragraph 75, summary report) and a payoff function for each player (paragraph 2 and 75, computed performance metrics); translating the player definitions into at least one codified script (paragraph 40, simulation engine and paragraph 126); and executing at least one codified script where the outcome and payoff functions at the end of the execution determine the economic impact of the business policies defined by the rules (paragraph 75, computed performance metrics. See also Figure 16 which displays a report containing the results of the scenarios run, which constitutes the payoffs. See also paragraph 33 which teaches modeling the conditions and trends of the economy and simulates what would happen in various scenarios which are generated in a report that helps to assess profitability to aid in decision making and strategy decisions.).

As per claim 2, Adler teaches the players being human (see claim 28).

As per claim 3, Adler teaches the players being human and automated (paragraph 49, user can edit: denotes human user, see also claim 28. See Table 8, items can be generated automatically: denotes non-human user).

As per claim 4, Adler teaches modifying the rules for one or more players (paragraph 75, modify domain models); translating the player definitions into codified

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scripts (paragraph 40, simulation engine and paragraph 126); and executing the script where the outcome and payoff functions at the end of the execution determine the economic impact of the business policies defined by the rules (paragraph 75, computed performance metrics).

As per claim 5, Adler teaches providing calibration data for the defined players (see claim 3 and paragraph 38 where the rules are based upon past performance and other factors which constitutes calibration data) based upon sales information, wherein the scripts are generated in accordance with the player definitions and calibration data (paragraph 126 and paragraph 36 where the models utilize sales transactions, which constitutes sales information, and market share information as means for defining the models).

As per claim 6, Adler teaches providing scenarios defining variations on the rules associated with one or more players (paragraph 88) which further comprises the step of generating scripts according to each player (paragraph 126, load into memory).

As per claim 7, Adler teaches the scripts are compiled on the fly during execution (paragraph 112, events can be injected as a static model or in real-time from an external data feed).

As per claim 8, Adler teaches the scripts are compiled in their entirety before execution (paragraph 112, events can be injected as a static model or in real-time from an external data feed).

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As per claim 9, Adler teaches the rules associated with at least one player that defines at least one business policy from the group: advertising policy, sales policy, returns policy, rebate policy or advertised price policy (Table 8, Import data).

As per claim 10, it teaches the same limitations as claim 1 and is therefore subject to the same art rejection.

As per claim 11, Adler teaches the players are human (see claim 28).

As per claim 12, Adler teaches the players are human and automated (paragraph 49, user can edit: denotes human user, see also claim 28. See Table 8, items can be generated automatically: denotes non-human user).

As per claim 13, Adler teaches a calibration module for providing data for defined players (claim 3) based upon historical information (paragraph 32 which teaches the invention simulates the outcomes of decisions over time under different scenarios and allows the user to revisit prior decisions by periodically updating models with current market data which constitutes historical information until it is updated with current data. See also paragraph 38 where the rules are based upon past performance, or historical data, and other factors.), wherein the scripts are generated in accordance with the player definitions and calibration data (paragraph 126 and 33).

As per claim 14, Adler teaches a database (paragraph 168) providing scenarios defining variations on rules associated with one or more players, wherein the script translator generates scripts according to the player definition variations (paragraph 126).

As per claim 15, Adler teaches the scripts are compiled on the fly during execution (paragraph 112, events can be injected as a static model or in real-time from an external data feed).

As per claim 16, Adler teaches the scripts are compiled in their entirety before execution (paragraph 112, events can be injected as a static model or in real-time from an external data feed).

As per claim 17, Adler teaches the set of rules associated with at least one player defines at least one business policy from the group comprising: advertising policy, sales policy, returns policy, rebate policy and minimum advertised price policy (See Table 8, Import Data).

As per claim 18, Adler teaches defining at least one player, business rules (16, domain models), and an environment that defines actions the player can take in accordance with the rules (paragraph 7: decision tree and (12) plurality of scenarios); translating the definitions into codified script (paragraph 40, simulation engine and paragraph 127); and determining a behavioral outcome resulting from player-selected actions during execution of the codified script (paragraph 123 and claim 63).

As per claim 19, Adler teaches the behavioral outcome includes an economic state of each player (claim 51, where economic condition is an input to the system and therefore, must produce a subsequent output).

As per claim 20, Adler teaches executing variations of the script to identify business rules and environment definitions that result in a pre-determined economic state (claim 4).

As per claim 21, it recites the same limitation as claim 13 and is therefore subject to the same art rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following art also teaches about modeling business processes: Lidow (US 2002/0194057), Lidow (US 2002/0194043), Singh et al (US 2002/0169657), Drolet et al (US 2002/0147622), Heimermann et al (US 2002/0143692), Cheng et al (US 6,138,103), "A Fuzzy game theoretic approach to Multi-agent coordination" by Wu et al, Lecture Notes in Computer Science, Published by Springer Berlin/Heidelberg, p. 76, 1999; "Agents that buy and sell" by Maes et al, Communications of the ACM, March 1999; "Agent-mediated integrative negotiation for retail electronic commerce" by Guttman et al, published by Springer-Verlag Heidelberg, AMET-98, LNAI 1571, p 70-90, 1999; "Is it an agent or just a program?: A taxonomy for autonomous agents" by Franklin et al, Proceedings of the Third International Workshop on Agent Theories, Architecture and Languages, Springer-Verlag, 1996; "Automated Negotiations: A survey of the State of the Art" by Beam et al, white paper by the University of California, Berkeley, Walter Haas School of Business, 1997; "Introduction to game theory and its applications in electric power markets" by Singh, IEEE Computer Applications in Power, October 1999; "Rules of Thumb versus Dynamic Programming" by Lettau et al, The American Economic Review, March 1999; "On designing economic agents that behave like human agents" by Arthur, Stochastic Hydrology and Hydraulics, Published by Springer Berlin/Heidelberg, March 1993; "Modeling Managerial Behavior:

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Misperceptions of Feedback in a Dynamic Decision Making Experiment” by Sterman, Management Science, March 1989; “Minimal Intelligence Agents for bargaining behaviors in market-based environments” by Cliff et al, Hewlett Packard Technical Bulletins, August 1997; “Less than human: simple trading agents for CDA markets” by Cliff et al, Hewlett Packard Technical Bulletins, 1997; “A model for the E-service marketplace” by Durante et al, Hewlett Packard Technical Bulletins, February 2000; “Automated Trading in agents-based markets for communication bandwidth” by Vulkan et al, Hewlett Packard Technical Bulletins, February 2000; “Shop ‘Til you drop II: Collective Adaptive Behavior of Simple Autonomous Trading Agents in Simulated ‘Retail’ Markets” by Cliff et al, Hewlett Packard Technical Bulletins, March 1998; and “Human Agent Communication” by Dickinson, Hewlett Packard Technical Bulletins, July 1998.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Krisciunas whose telephone number is 571-272-6931. The examiner can normally be reached on Monday through Friday, 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LMK

LMK

June 27, 2006

Romain Jeanty
Primary Examiner
Art Unit 3623